

#3



1

SEQUENCE LISTING

SUB
B1

<110> GONTHADANTEL P.
SHOPES, ROBERT J.

<120> METHOD AND COMPOSITION FOR ALTERING A B CELL MEDIATED
PATHOLOGY

<130> 032077.0003

<140> 09/927,121

<141> 2001-08-10

<160> 93

<170> PatentIn Ver. 2.1

<210> 1

<211> 22

<212> PRT

<213> Homo sapiens

<400> 1
Met Leu Gly Pro Cys Met Leu Leu Leu Leu Leu Leu Gly Leu Arg
1 5 10 15
Leu Gln Leu Ser Leu Gly
20

<210> 2

<211> 66

<212> DNA

<213> Homo sapiens

<400> 2
atggtgggac cctgcatgct gctgctgctg ctgctgctag gcttgaggct acagctctcc 60
ctgggc 66

<210> 3

<211> 21

<212> PRT

<213> Apis mellifera

<400> 3
Met Lys Phe Leu Val Asn Val Ala Leu Val Phe Met Val Val Tyr Ile
1 5 10 15
Ser Tyr Ile Tyr Ala
20

<210> 4

<211> 63

<212> DNA

<213> Apis mellifera

<400> 4

atgaaattct tagtcaacgt tgcactagtt tttatggctg tgtacatttc ttacatctat 60
gcg 63

<210> 5

<211> 7125

<212> DNA

<213> Autographa californica nucleopolyhedrovirus

<220>

<223> Expression vector

<400> 5

gcagttcggt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
gcggcggtgcc gcacgcgacg cacaagtatc tgtacaccga atgatcgctg ggcgaggcca 120
cgtcggcctc caagtggcaa tattggcaaa ttcgaaaata tatacagttg ggttgtttgc 180
gcatatctat cgtggcggtg ggcattgtacg tccgaacgtt gatttgcatg caagccgaaa 240
ttaaatacatt gcgattagtg cgattaaaac gttgtacatc ctgcctttta atcatgccgt 300
cgattaaatc gcgcaatcga gtcaagtgtg caaagtgtgg aataatgttt tctttgtatt 360
cccaggtcaa gcgcagcgcg tattttaaca aactagccat cttgtaagtt agtttcattt 420
aatgcaactt tatccaataa tatattatgt atcgcacgtc aagaattaac aatgcgccc 480
ttgtcgcatc tcaacacgac tatgatagag atcaataaaa gcgcgaatta aatagcttgc 540
gacgcaacgt gcacgatctg tgcacgcgtt ccggcacgag ctttgattgt aataagtttt 600
tacgaagcga tgacatgacc cccgtagtga caacgatcac gcccaaaaaga actgccgact 660
acaaaattac cgagtatgtc ggtgacgtta aaactattaa gccatccaat cgaccggttag 720
tcgaatcagg accgctggtg cgagaagccg cgaagtatgg cgaatgcac gtataacgtg 780
tggagtcggc tcattagagc gtcattgtta gacaagaaag ctacatattt aattgatccc 840
gatgatttta ttgataaatt gaccctaact ccatacacgg tattctacaa tggcgggggt 900
ttggtcaaaa tttccggact gcgattgtac atgctgttaa cggctccgcc cactattaat 960
gaaattaaaa attccaattt taaaaaacgc agcaagagaa acatttgtat gaaagaatgc 1020
gtagaaggaa agaaaaatgt cgtcgacatg ctgaacaaca agattaatat gcctccgtgt 1080
ataaaaaaaa tattgaacga tttgaaagaa aacaatgtac cgcgcggcgg tatgtacagg 1140
aagaggttta tactaaactg ttacattgca aacgtgggtt cgtgtgcca gtgtgaaaac 1200
cgatgtttta tcaaggctct gacgcatttc tacaaccacg actccaagtg tgtgggtgaa 1260
gtcatgcac ttttaatcaa atcccaagat gtgtataaac caccaaaactg ccaaaaaatg 1320
aaaactgtcg acaagctctg tccgtttgtt ggcaactgca agggctctca tcttatttgc 1380
aattattgaa taataaaaca attataaatg ctaaaattgt tttttattaa cgatacaaac 1440
caaacgcaac aagaacattt gtagtattat ctataattga aaacgcgtag ttataatcgc 1500
tgaggtaata tttaaaatca tttcaaatg attcacagtt aatttgcgac aatataattt 1560
tattttcaca taaactagac gccttgcgtt cttcttcttc gtattccttc tcttttcat 1620
ttttctctc ataaaaatta acatagttat tatcgatcc atatatgtat ctatcgtata 1680
gagtaaattt tttgttgta taaatatata tgtctttttt aatgggggtg atagtaccgc 1740
tgcgcatagt ttttctgtaa tttacaacag tgctattttc tggtagttct tcggagtggtg 1800
ttgttttaatt tattaattt atataatcaa tgaatttggg atcgtcgggt ttgtacaata 1860
tggtgcccgc atagtacgca gcttcttcta gttcaattac accatttttt agcagcaccg 1920
gattaacata actttccaaa atgttgtacg aaccgttaaa caaaaacagt tcacctccct 1980
tttctatact attgtctgcg agcagttggt tgttgttaaa aataacagcc attgtaatga 2040
gacgcacaaa ctaatatcac aaactggaaa tgtctatcaa tatatagttg ctgatatttc 2100
cccagatgc ctgctattgt cttcccaatc ctcccccttg ctgtcctgcc ccaccccacc 2160
cccagaata gaatgacacc tactcagaca atgcgatgca atttctcat tttattagga 2220
aaggacagtg ggagtggtcac cttccagggt caaggaaggc acggggggagg ggcaaacaa 2280
agatggctgg caactagaag gcacagtcga ggctgatcag cgagctctag tctagactag 2340
tataccgagg gccctgcagg ccttaaggcg cgcccgggcg gccgcgtacg attgtaata 2400
aaatgtaatt tacagtatag tattttaatt aatatacaaa tgatttgata ataattctta 2460
tttaactata atatatgtg ttgggttgaa ttaaagggtc cggcatcctc aaatgcataa 2520
tttcatagtc ccccttggtg taagtgatgc gtattttctga atctttgtaa aatagcacac 2580

aagactccaa	cgcgtttggc	gttttatttt	cttgctcgag	gatatcatgg	agataattaa	2640
aatgataacc	atctcgc aaa	t aaataagta	ttttactggt	ttcgt aacag	ttttgtaata	2700
aaaaaaccta	t aaatattcc	ggattattca	taccgtccca	ccatcgggcg	tgctagcgga	2760
tccgagctcg	agatctgcag	ctggtagcat	ggaattcgaa	gcttgctggt	ggatggaaaag	2820
gaaaagagtt	ctacagggaa	acttggaacc	gcttcatgga	agacagcttc	cccattgtta	2880
acgaccaaga	agtgatggat	gttttccttg	ttgtcaacat	gcgtccact	agacccaacc	2940
gttggttaca	attcctggcc	caacacgctc	tgctgtgcga	ccccgactat	gtacctcatg	3000
acgtgattag	gatcgtcgag	ccttcatggg	tgggcagcaa	caacgagtag	cgcacagacc	3060
tggctaagaa	gggcggcgcc	tgcccaataa	tgaaccttca	ctctgagtag	accaactcgt	3120
tcgaacagtt	catcgatcgt	gtcatctggg	agaacttcta	caagcccatc	gtttacatcg	3180
gtaccgactc	tgctgaagag	gaggaaattc	tccttgaagt	ttccctgggt	ttcaaagtaa	3240
aggagtttgc	accagacgca	cctctgttca	ctggtccggc	gtattaaaac	acgatacatt	3300
gttattagta	catttattaa	gcgctagatt	ctgtgcgttg	ttgatttaca	gacaattggt	3360
gtacgtattt	taataattca	ttaaatttat	aatcttttagg	gtggtaggtt	agagcgaaaa	3420
tcaaatgatt	ttcagcgtct	ttatatctga	atttaaatat	taaatcctca	atagattttgt	3480
aaaatagggt	tcgattagtt	tcaaacaagg	gttggttttc	cgaaccgatg	gctggactat	3540
ctaattggatt	ttcgtc aac	gccacaaaac	ttgccaaatc	ttgtagcagc	aatctagctt	3600
tgctgatatt	cgtttgtgtt	ttgttttgta	ataaagggtc	gacgtcgttc	aaaatattat	3660
gcgcttttgt	atttctttca	tcactgtcgt	tagtgtacaa	ttgactcgac	gtaaacacgt	3720
t aaataaagc	tagcttggac	atatttaaca	t cggcggtgt	tagctttatt	agggccgatta	3780
tcgtcgtcgt	cccaaccctc	gtcgttagaa	gttgcttccg	aagacgattt	tgccatagcc	3840
acacgacgcc	tattaatgtt	gtcggctaac	acgtccgcga	tcaaatgtgt	agttgagctt	3900
tttggaatta	tttctgattg	cgggcgtttt	tgggcggggt	tcaatctaac	tgtgcccgat	3960
tttaattcag	acaacacgtt	agaaagcgat	ggtgcaggcg	gtggtaacat	ttcagacggc	4020
aaatctacta	atggcgcgcg	tgggtgagct	gatgataaat	ctaccatcgg	tggaggcgca	4080
ggcggggctg	gcggcgaggg	cggaggcgga	ggtggtggcg	gtgatgcaga	cggcggttta	4140
ggctcaaatg	tctcttttagg	caacacagtc	ggcacctcaa	ctattgtact	ggtttcgggc	4200
gccgtttttg	gtttgaccgg	tctgagacga	gtgcgatttt	tttcgtttct	aatagcttcc	4260
aacaattggt	gtctgtcgtc	t aaagggtca	gcgggttgag	gttccgtcgg	cattggtgga	4320
gcgggcggca	attcagacat	cgatggtggt	ggtggtggtg	gaggcgctgg	aatggttaggc	4380
acgggagaaag	gtggtggcgg	cgggtgcgcc	ggtataattt	gttctggttt	agtttgttcg	4440
cgcacgattg	tgggcaccgg	cgcaggcgcc	gctggctgca	caacggaagg	tcgtctgctt	4500
cgaggcagcg	cttgggggtgg	tggcaattca	atattataat	tggaaatacaa	atcgtaaaaa	4560
tctgctataa	gcattgtaat	ttcgtctatcg	tttaccgtgc	cgatattttaa	caaccgctca	4620
atgtaagcaa	ttgtattgta	aagagattgt	ctcaaagctcc	gcacgccgat	aacaagcctt	4680
ttcattttta	ctacagcatt	gtagtggcga	gacacttcgc	tgctcgtcgac	tcgagttcta	4740
tagtgtcacc	t aaatcgtat	gtgtatgata	cataagggtta	tgtattaatt	gtagccgcgt	4800
tctaacgaca	atatgtccat	atggtgcact	ctcagtacaa	tctgctctga	tgccgcgatag	4860
ttaagccagc	cccgaacccc	gccaaacccc	gctgacgcgc	cctgacgggc	ttgtctgctc	4920
ccggcatccg	cttacagaca	agctgtgacc	gtctccggga	gctgcagtgtg	tcagaggtttt	4980
tcaccgtcat	caccgaaaacg	cgcgagacga	aagggcctcg	tgatacgctt	atttttatag	5040
gttaatgtca	tgataataat	ggtttcttag	acgtcagggtg	gcacttttctg	gggaaatgtg	5100
cgcggaaccc	ctatttgttt	atttttctaa	atacattcaa	atatgtatcc	gctcatgaga	5160
caataaccct	gataaatgct	tcaataatat	t gaaaaagga	agagtatgag	tattcaacat	5220
ttcctgtctg	cccttattcc	cttttttgcg	gcattttgcc	ttcctgtttt	tgctcaacca	5280
gaaacgctgg	tgaaagtaaa	agatgctgaa	gatcagttgg	gtgcacgagt	gggttacatc	5340
gaactggatc	tcaacagcgg	taagatcctt	gagagttttc	gccccgaaga	acgtttttcca	5400
atgatgagca	cttttaaaagt	tctgctatgt	ggcgcggtat	tatcccgtag	tgacgcccgg	5460
caagagcaac	tcgggtcgccg	catacactat	tctcagaatg	acttggttga	gtactcacca	5520
gtcacagaaa	agcatcttac	ggatggcatg	acagtaagag	aattatgcag	tgctgccata	5580
accatgagtg	ataacactgc	ggccaaactta	cttctgacaa	cgatcggagg	accgaaggag	5640
ctaaccgctt	ttttgcacaa	catgggggat	catgtaactc	gccttgatcg	ttgggaaccg	5700
gagctgaatg	aagccatacc	aaacgacgag	cgtgacacca	cgatgcctgt	agcaatggca	5760
acaacgttgc	gcaaactatt	aactggcgaa	ctacttactc	tagcttcccg	gcaacaatta	5820
atagactgga	tggaggcgga	t aaagttgca	ggaccacttc	tgcgctcggc	ccttccgggt	5880
ggctgggttta	ttgctgataa	atctggagcc	ggtgagcgtg	ggctcgcggg	tatcattgca	5940
gcaactggggc	cagatggtaa	gccctcccg	atcgtagtta	tctacacgac	ggggagtcag	6000
gcaactatgg	atgaacgaaa	tagacagatc	gctgagatag	gtgcctcact	gattaagcat	6060

tggttaactgt	cagaccaagt	ttactcatat	atactttaga	ttgatttaaa	acttcatttt	6120
taattttaaaa	ggatctaggt	gaagatcctt	tttgataatc	tcattgaccaa	aatcccttaa	6180
cgtgagtttt	cgttccactg	agcgtagac	cccgtagaaa	agatcaaagg	atcttcttga	6240
gattccttttt	ttctgcgcgt	aactctgctg	ttgcaaacaa	aaaaaccacc	gctaccagcg	6300
gtggtttgtt	tgccggatca	agagctacca	actctttttc	cgaaggtaac	tggcttcagc	6360
agagcgcaga	taccaaatac	tgtccttcta	gtgtagccgt	agttaggcca	ccacttcaag	6420
aactctgtag	caccgcctac	atacctcgct	ctgctaatac	tgttaccagt	ggctgctgcc	6480
agtggcgata	agtcgtgtct	taccgggttg	gactcaagac	gatagttacc	ggataaggcg	6540
cagcggtcgg	gctgaacggg	gggttcgtgc	acacagccca	gcttgagcgc	aacgacctac	6600
accgaactga	gatacctaca	gcgtgagcat	tgagaaagcg	ccacgcttcc	cgaagggaga	6660
aaggcggaca	ggtatccggg	aagcggcagg	gtcggaaacg	gagagcgcac	gagggagctt	6720
ccaggggggaa	acgcctggta	tctttatagt	cctgtcgggt	ttcgccacct	ctgacttgag	6780
cgctgatttt	tgtgatgctc	gtcagggggg	cggagcctat	ggaaaaacgc	cagcaacgcg	6840
gcctttttac	ggttcctggc	cttttgctgg	ccttttgctc	acatgttctt	tcctgcgtta	6900
tcccttgatt	ctgtggataa	ccgtattacc	gcctttgagt	gagctgatac	cgctcgccgc	6960
agccgaacga	ccgagcgcag	cgagtcagtg	agcgaggaa	cggaagagcg	cccaatacgc	7020
aaaccgcctc	tccccgcgcg	ttggccgatt	cattaatgca	ggttaacctg	gcttatcgaa	7080
attaatacga	ctcactatag	ggagaccggc	agatcgatct	gtcga		7125

<210> 6

<211> 8420

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: pTRABacHuLCHC1
DNA sequence

<400> 6

gcagttcggt	gacgccttcc	tccgtgtggc	cgaacacgct	gagcgggtgg	tcgatgacca	60
gcggcggtgc	gcacgcgacg	cacaagtatc	tgtacaccga	atgatcgctg	ggcgaaggca	120
cgtcggcctc	caagtggcaa	tattggcaaa	ttcgaaaata	tatacagttg	ggttgtttgc	180
gcatacttat	cgtggcggtg	ggcatgtacg	tccgaacggt	gatttgcatg	caagccgaaa	240
ttaaatcatt	gcgattagtg	cgattaaaac	gttgtagatc	ctcgctttta	atcatgcccgt	300
cgattaaatc	gcgcaatcga	gtcaagtgat	caaagtgtgg	aataatgttt	tccttgtatt	360
cccaggtcaa	gcgcagcgcg	tattttaaca	aactagccat	cttgtaagtt	agtttcattt	420
aatgcaactt	tatccaataa	tatattatgt	atcgacgctc	aagaattaac	aatgcccgcg	480
ttgtcgcata	tcaacacgac	tatgatagag	atcaaataaa	gcgcgaatta	aatagcttgc	540
gacgcaacgt	gcacgatctg	tgacgcggtt	ccggcacgag	ctttgattgt	aataagtttt	600
tacgaagcga	tgacatgacc	cccgtagtga	caacgatcac	gccccaaaaga	actgccgact	660
acaaaattac	cgagtatgtc	ggtgacgtta	aaactattaa	gccatccaat	cgaccgttag	720
tcgaatcagg	accgctgggtg	cgagaagccg	cgaagtatgg	cgaatgcata	gtataacgtg	780
tggagtcgcg	tcattagagc	gtcatgttta	gacaagaaag	ctacatattt	aattgatccc	840
gatgatttta	ttgataaatt	gaccctaact	ccatacacgg	tattctacaa	tggcgggggt	900
ttggtcaaaa	tttccggact	gcgattgtac	atgctgttaa	cggtcccgcc	cactattaat	960
gaaattaaaa	attccaattt	taaaaaacgc	agcaagagaa	acatttgtat	gaaagaatgc	1020
gtagaaggaa	agaaaaatgt	cgtcgacatg	ctgaacaaca	agattaatat	gcctccgtgt	1080
ataaaaaaaaa	tattgaacga	tttgaagaa	aacaatgtac	cgcgcgggcg	tatgtacagg	1140
aagaggttta	tactaaactg	ttacattgca	aacgtgggtt	cgtgtgccaa	gtgtgaaaac	1200
cgatgtttta	tcaaggtctt	gacgcatttc	tacaaccacg	actccaagtg	tgtgggtgaa	1260
gtcatgcatc	ttttaatcaa	atcccaagat	gtgtataaac	caccaaactg	ccaaaaaatg	1320
aaaactgtcg	acaagctctg	tccgttttgt	ggcaactgca	aggggtctcaa	tcctatttgt	1380
aattattgaa	taataaaaca	attataaatg	ctaaatttgt	tttttattaa	cgatacaaac	1440
caaacgcaac	aagaacattt	gtagtattat	ctataattga	aaacgcgtag	ttataatcgc	1500
tgaggtaata	tttaaatca	ttttcaaag	attcacagtt	aatttgcgac	aatataattt	1560
tattttcaca	taaaactagac	gccttgctgt	cttcttcttc	gtattccttc	tccttttcat	1620
ttttctcctc	ataaaaaatta	acatagttaa	tatcgatatc	atatatgtat	ctatcgtata	1680

gagtaaattt	tttgttgta	taaatatata	tgtctttttt	aatgggggtg	atagtaccgc	1740
tgcgcatagt	ttttctgtaa	tttacaacag	tgtctattttc	tggtagttct	tcggagtgtg	1800
ttgctttaat	tattaaattt	atataatcaa	tgaatttggg	atcgctcggt	ttgtacaata	1860
tggtgcccgc	atagtacgca	gcttcttcta	gttcaattac	accatttttt	agcagcaccg	1920
gattaacata	actttccaaa	atgtttgtacg	aaccgttaaa	caaaaacagt	tcacctccct	1980
tttctatact	attgtctgcg	agcagttggt	tgtttgttaa	aataacagcc	attgtaatga	2040
gacgcacaaa	ctaataatcac	aaactggaaa	tgtctatcaa	tatatagtgt	ctgatatctc	2100
cccagcatgc	ctgctattgt	cttcccaatc	ctcccccttg	ctgtcctgcc	ccacccccacc	2160
ccccagaata	gaatgacacc	tactcagaca	atgcgatgca	atttcctcat	tttatttagga	2220
aaggacagtg	ggagtggcac	cttcagggt	caagggaagg	acgggggagg	ggcaaacac	2280
agatggctgg	caactagaag	gcacagtcga	ggctgatcag	cgagctctag	tctagactat	2340
tatttaccgc	gagacaggga	gaggctcttc	tgcgtgtagt	ggttgtgcag	agcctcatgc	2400
atcacggagc	atgagaagac	gttccccctgc	tgccacctgc	tcttgtccac	ggtgagcttg	2460
ctgtagagga	agaaggagcc	gtcggagtc	agcacgggag	gcgtggctct	gtagttgttc	2520
tccggctgcc	cattgctctc	ccactccacg	gcgatgtcgc	tgggatagaa	gcctttgacc	2580
aggcaggtca	ggctgacctg	gttcttgggt	agctcatccc	gggatggggg	cagggtgtac	2640
acctgtggtt	ctcggggctg	ccctttgggt	ttggagatgg	ttttctcgat	gggggctggg	2700
agggccttgt	tggagacctt	gcacttgtac	tccttgccat	tcagccagtc	ctgggtgcagg	2760
acggtagagga	cgctgaccac	acggtagctg	ctgttgtact	gctcctccc	cggtttgtc	2820
ttggcattat	gcacctccac	gccgtccacg	taccagttga	acttgacctc	aggggtctcg	2880
tggtcacgt	ccaccaccac	gcagtgtgacc	tcaggggtcc	gggagatcat	gaggggtgcc	2940
ttgggttttg	gggggaagag	gaagactgac	gggtccccc	ggagttcagg	tgctgggcac	3000
ggtgggcatg	tgtgagtttt	gtcacaaagat	ttgggtcaa	ctttcttgtc	caccttgggtg	3060
ttgctgggct	tgtgattcac	gttgacagatg	taggtctggg	tgccccagct	gctggagggg	3120
acggtcacca	cgctgctgag	ggagttagagt	cctgaggact	gtaggacagc	cgggaagggtg	3180
tgcacgccc	tggtcagggc	gcctgagttc	cacgacaccg	tcaccgggtc	ggggaagtag	3240
tccttgacca	ggcagcccag	ggccgctgtg	ccccagagg	tgctcttgga	ggagggtgcc	3300
agggggaaga	ccgatgggccc	cactagtgc	acgttgacta	agaatttcat	gcggcccgct	3360
acgattgtaa	ataaaatgta	atttacagta	tagtatattta	attaatatat	aaatgatttg	3420
ataataattc	ttatttaact	ataatatatt	gtgttgggtt	gaattaaagg	tcccggcatc	3480
ctcaaatgca	taatatcata	gtcccccttg	ttgtaagtga	tgcgattttc	tgaatctttg	3540
taaaatagca	cacaggactc	caacgcgttt	ggcgttttat	tttcttgctc	gaggatatca	3600
tggagataat	taaaatgata	accatctcgc	aaataaataa	gtattttact	gttttcgtaa	3660
cagttttgta	ataaaaaaac	ctataaatat	tccggattat	tcataccgct	ccaccatcgg	3720
gcgtgctagc	ggatccatgg	tgggaccctg	catgctgctg	ctgctgctgc	tgctaggcct	3780
caccaagtgt	cttcatcttc	ccgcatctg	atgagcagtt	gaaatctgga	actgcctctg	3840
ttgttgccct	gctgaataac	ttctatccca	gagaggccaa	agtacagtgg	aagggtggata	3900
acgcctcca	atcggttaac	tcccaggaga	gtgtcacaga	gcaggacagc	aaggacagca	3960
cctacagcct	cagcagcacc	ctgacgctga	gcaaaagcaga	ctacgagaaa	cacaaagtct	4020
acgcctgcga	agtcacccat	cagggcctga	gctcgccctg	cacaaagagc	ttcaacaggg	4080
gagagtgtta	atagaagctt	gtcgttggtg	ggaaaggaaa	agagttctac	agggaaactt	4140
ggaccgcctt	catggaagac	agcttcccc	ttgttaacga	ccaagaagtg	atggatgttt	4200
tccttggtgt	caacatgcgt	cccactagac	ccaaccgttg	ttacaaattc	ctggcccaac	4260
acgctctgcg	ttgcgacccc	gactatgtac	ctcatgacgt	gattaggatc	gtcagagcctt	4320
catgggtggg	cagcaacaac	gagtaccgca	tcagcctggc	taagaagggc	ggcggctgcc	4380
caataatgaa	ccttcactct	gagtacacca	actcgttcga	acagttcatc	gatcggtgta	4440
tctgggagaa	cttctacaag	cccatcggtt	acatcggtac	cgactctgct	gaagaggagg	4500
aaattctcct	tgaagtcttc	ctgggtgttc	aagtaaaggga	gtttgcacca	gacgcacctc	4560
tgttcactgg	tccggcgat	taaaacacga	tacattgtta	ttagtacatt	tattaagcgc	4620
tagattctgt	gcgttgttga	tttacagaca	attgttgtac	gtattttaat	aattcattaa	4680
atttataatc	tttaggttgg	tatgttagag	cgaaaatcaa	atgattttca	gcgtctttat	4740
atctgaattt	aaatattaaa	tctcaatag	atttgtaaaa	taggtttcga	ttagtttcaa	4800
acaagggttg	tttttccgaa	ccgatggctg	gactatctaa	tggattttcg	ctcaacgcca	4860
caaaacttgc	caaactctgt	agcagcaatc	tagctttgtc	gatattcggt	tgtgttttgt	4920
tttgtaataa	aggttcgacg	tcgttcaaaa	tattatgcgc	ttttgtattt	ctttcatcac	4980
tgtcggttagt	gtacaattga	ctcgacgtaa	acacgttaaa	taaagctagc	ttggacatat	5040
ttaacatcgg	gcgtgttagc	tttattaggc	cgattatcgt	cgtcgtccca	accctcgctg	5100
ttagaagtgt	cttccgaaga	cgattttgccc	atagccacac	gacgcctatt	aattgtgtcg	5160

gctaacacgt	ccgcgatcaa	attttagt	gagctttttg	gaattatttc	tgattgcggg	5220
cgttttttgg	cgggtttcaa	tctaactgtg	cccgatttta	attcagacaa	cacgttagaa	5280
agcgatgggtg	caggcggtgg	taacatttca	gacggcaaat	ctactaatgg	cggcggtggg	5340
ggagctgatg	ataaatctac	catcggtgga	ggcgagggcg	gggctggcgg	cggagggcga	5400
ggcggaggtg	gtggcggtga	tgcagacggc	ggtttaggct	caaatgtctc	tttaggcaac	5460
acagtcggca	cctcaactat	tgtactgggt	tcgggcgccg	tttttggttt	gaccggctcg	5520
agacgagtgc	gatttttttc	gtttctaata	gcttccaaca	attgttgtct	gtcgtctaaa	5580
gggtgcagcgg	ggtgaggttc	cgctcggcatt	gggtggagcgg	gcggcaattc	agacatcgat	5640
gggtggtgggtg	gtggtggagg	cgctggaatg	ttaggcacgg	gagaagggtg	tggcggcggg	5700
gccgcgggta	taattttgttc	tggtttaggt	tggtcgcgca	cgatttgtgg	caccggcgca	5760
ggcgcggcgtg	gctgcacaac	ggaaggctcg	ctgcttcgag	gcagcgcttg	gggtggtggc	5820
aattcaatat	tataattgga	atacaaatcg	taaaaatctg	ctataagcat	tgtaatttcg	5880
ctatcggtta	ccgtgccgat	atttaacaac	cgctcaatgt	aagcaattgt	attgtaaaga	5940
gattgtctca	agctccgcac	gccgataaca	agccttttca	tttttactac	agcattgtag	6000
tggcgagaca	cttcgctgtc	gtcgactcga	gttctatagt	gtcacctaaa	tcgtatgtgt	6060
atgatacata	aggttatgta	ttaattgtag	ccgcgttcta	acgacaatat	gtccatatgg	6120
tgcactctca	gtacaatctg	ctctgatgcc	gcatagttaa	gccagccccc	acacccgccca	6180
acacccgctg	acgcgcctcg	acgggcttgt	ctgctcccgg	catccgctta	cagacaagct	6240
gtgaccgtct	ccgggagctg	catgtgtcag	aggttttcac	cgctcatcacc	gaaacgcgcg	6300
agaggaaagg	gcctcgatgat	acgcctatct	ttatagggtta	atgtcatgat	aataatgggt	6360
tcttagacgt	caggtggcac	ttttcgggga	aatgtgcgcg	gaacccctat	ttgtttatct	6420
ttctaataac	attcaaatat	gtatccgctc	atgagacaat	aaccctgata	aatgcttcaa	6480
taatatggaa	aaaggaagag	tatgagtatt	caacatttcc	gtgtcgccct	tattcccttt	6540
tttgcggeat	tttgcccttc	tgtttttgct	caccagaaaa	cgctggtgaa	agtaaaagat	6600
gctgaagatc	agttgggtgc	acgaagtggg	tacatcgaaac	tggatctcaa	cagcggttaag	6660
atccttgaga	gttttcgccc	cgaagaacgt	tttccaatga	tgagcacttt	taaagttctg	6720
ctatgtggcg	cggattatct	ccgtattgac	gccgggcaag	agcaactcgg	tcgccgcata	6780
cactattctc	agaatgactt	ggttgagtac	tcaccagtca	cagaaaagca	tcttacggat	6840
ggcatgacag	taagagaatt	atgcagtgtc	gccataacca	tgagtgataa	cactgcggcc	6900
aaactacttc	tgacaacgat	cggaggaccg	aaggagctaa	ccgctttttt	gcacaacatg	6960
ggggatcatg	taactcgcc	tgatcggttg	gaaccggagc	tgaatgaagc	cataccaaac	7020
gacgagcgtg	acaccacgat	gcctgtagca	atggcaacaa	cggtgcgcaa	actattaact	7080
ggcgaaactac	ttactctagc	ttcccggcaa	caattaatag	actggatgga	ggcggataaa	7140
ggtgcaggac	cacttctgcg	ctcggccctt	ccggctggct	ggtttattgc	tgataaatct	7200
ggagccgggtg	agcgtgggtc	tcgcggtatc	attgcagcac	tggggccaga	tggtaagccc	7260
tcctgtatcg	tagttatcta	cacgacgggg	agtcaggcaa	ctatggatga	acgaaataga	7320
cagatcgctg	agatagggtc	ctcactgatt	aagcattggg	aactgtcaga	ccaagtttac	7380
tcataataac	tttagatgat	ttaaaacttc	atttttaatt	taaaaggatc	taggtgaaga	7440
tcctttttga	taatctcatg	acccaaatcc	cttaacgtga	gttttcgttc	cactgagcgt	7500
cagaccccg	agaaaagatc	aaaggatctt	cttgagatcc	tttttttctg	cgcgtaactc	7560
gctgcttgca	aacaaaaaaa	ccaccgctac	cagcggtggg	ttgtttgccg	gatcaagagc	7620
taccaactct	ttttccgaag	gtaactggct	tcagcagagc	gcagatacca	aatactgtcc	7680
ttctagtgtg	gccgtagtta	ggccaccact	tcaagaactc	tgtagcaccg	cctacatacc	7740
tcgctctgct	aatcctgtta	ccagtggctg	ctgccagtgg	cgataagtcg	tgtcttaccg	7800
ggttggactc	aagacgatag	ttaccggata	aggcgcagcg	gtcgggctga	acgggggggt	7860
cgtgcacaca	gccagcttg	gagcgaacga	cctacaccga	actgagatac	ctacagcgtg	7920
agcattgaga	aagcgccacg	cttcccgaag	ggagaaaggc	ggacaggtat	ccggttaagcg	7980
gcagggtcgg	aacaggagag	cgcacgaggg	agcttccagg	gggaaacgcc	tggtatcttt	8040
atagtctctg	cgggtttcgc	cacctctgac	ttgagcgtcg	attttttgtg	tgctcgtcag	8100
gggggaggag	cctatggaaa	aacgccagca	acgcggcctt	tttacggttc	ctggcctttt	8160
gctggccttt	tgctcacatg	ttctttcctg	cgttatcccc	tgattctgtg	gataaccgta	8220
ttaccgcctt	tgagtgagct	gataccgctc	gccgcagccg	aacgaccgag	cgcagcgagt	8280
cagtgagcga	ggaagcggaa	gagcgcccaa	tacgcaaacc	gcctctcccc	gcgcggtggc	8340
cgattcatta	atgcagggtta	acctggttta	tcgaaattaa	tacgactcac	tatagggaga	8400
ccggcagatc	gatctgtcga					8420

<210> 7
 <211> 8415
 <212> DNA
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: pTRABacHuLCHC1
 DNA sequence

<400> 7
 gcagttcgtt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
 gcggcgtgcc gcacgcgacg cacaagtatc tgtacaccga atgatcgtcg ggcgaaaggca 120
 cgtcggcctc caagtggcaa tattggcaaa ttcgaaaata tatacagttg ggttgtttgc 180
 gcatatctat cgtggcgttg ggcattgtacg tccgaacgtt gatttgcattg caagccgaaa 240
 ttaaatacatt gcgattagtg cgattaaaac gttgtacatc ctcgctttta atcatgccgt 300
 cgattaaatc gcgcaatcga gtcaagtgat caaagtgtgg aataatgttt tctttgtatt 360
 cccgagtcaa gcgcagcgcg tatttttaaca aactagccat cttgtaagtt agtttcattt 420
 aatgcaactt tatccaataa tatattatgt atcgacgtc aagaattaac aatgcgcccg 480
 ttgtcgcacg tcaacacgac tatgatagag atcaaataa gcgcgaatta aatagcttgc 540
 gacgcaacgt gcacgatctg gaccctaact ccatacacgag ctttgattgt aataagtttt 600
 tacgaagcga tgacatgacc cccgtagtga caacgatcac gcccaaaaga actgccgact 660
 acaaaattac cgagtatgtc ggtgacgtta aaactattaa gccatccaat cgaccgttag 720
 tcgaatcagg accgctggtg cgagaagccg cgaagtatgg cgaatgcacg gtataacgtg 780
 tggagtcggc tcattagagc gtcattgtta gacaagaaag ctacatattt aattgatccc 840
 gatgatttta ttgataaatt gaccctaact ccatacacg gtttctacaa tggcggggtt 900
 ttggtcaaaa tttccggact gcgattgtac atgctgttaa cggctccgcc cactattaat 960
 gaaattaaaa attccaattt taaaaaacgc agcaagagaa acatttgtat gaaagaatgc 1020
 gtagaaggaa agaaaaatgt cgtcgacatg ctgaacaaca agattaatat gcctccgtgt 1080
 ataaaaaaaa tattgaacga tttgaaagaa aacaatgtac cgcgcggcgg tatgtacagg 1140
 aagaggttta tactaaactg ttacattgca aacgtggttt cgtgtgcca gtgtgaaaac 1200
 cgatgtttta tcaaggctct gacgcatttc tacaaccacg actccaagtg tgtgggtgaa 1260
 gtcattgcac ttttaaatcaa atcccaagat gtgtataaac caccaaaactg ccaaaaaatg 1320
 aaaactgtcg acaagctctg tccgtttgct ggcaactgca agggctctcaa tcctatttgt 1380
 aattattgaa taataaaaca attataaatg ctataattgt tttttattaa cgatacaaac 1440
 caaacgcaac aagaacattt gtagtattat ctataattga aaacgcgtag ttataatcgc 1500
 tgaggtaata tttaaaatca ttttcaaatg attcacagtt aatttgcgac aatataaatt 1560
 tattttcaca taaactagac gccttgcgtt cttcttcttc gtattccttc tctttttcat 1620
 ttttctcctc ataaaaatta acatagttat tatcgtatcc atatatgtat ctatcgtata 1680
 gagtaaattt tttgttgtca taaatatata tgtctttttt aatgggggtg atagtaccgc 1740
 tgcgcatagt ttttctgtaa tttacaacag tgctatttct tggtagttct tcggagtgtg 1800
 ttgctttaat tattaaattt atataatcaa tgaatttggg atcgtcgggt ttgtacaata 1860
 tgttgccggc atagtacgca gcttcttcta gttcaattac accatttttt agcagcaccg 1920
 gattaacata actttccaaa atgttgtacg aaccgttaaa caaaaacagt tcacctccct 1980
 tttctatact attgtctcg agcagttgtt tgttgtaaaa aataacagcc attgtaatga 2040
 gacgcacaaa ctaatatcac aaactggaaa tgtctatcaa tatatagttg ctgatatctc 2100
 cccagcatgc ctgctattgt cttcccaatc ctcccccttg ctgtcctgcc ccacccacc 2160
 cccagaata gaatgacacc tactcagaca atgcatgca atttctcat tttattagga 2220
 aaggacagtg ggagtggcac cttccagggt caaggaaggc acgggggagg ggcaaacaa 2280
 agatggctgg caactagaag gcacagtcga ggctgatcag cgagctctag tctagactat 2340
 tatttaccgg gagacaggga gaggtcttct tgcgtgtagt ggttgtgcag agcctcatgc 2400
 atcacggagc atgagaagac gttccccctg tcccacctgc tcttgtccac ggtgagcttg 2460
 ctgtagagga agaaggagcc gtcggagtcc agcacgggag gcgtggtctt gtagttgttc 2520
 tccggctgcc cattgctctc ccactccacg gcgatgtcgc tgggatagaa gcctttgacc 2580
 aggcaggtca ggctgacctg gttcttggtc agctcatccc gggatggggg cagggtgtac 2640
 acctgtggtt ctcggggctg ccctttggct ttggagatgg ttttctcgat gggggctggg 2700
 agggctttgt tggagacctt gcacttgtac tccctgccat tcagccagtc ctggtgcagg 2760
 acggtgagga cgctgaccac acggtacgtg ctggtgtact gctcctcccg cggctttgtc 2820
 ttggcattat gcacctccac gccgtccacg taccagttga acttgacctc agggctcttcg 2880

tggctcacgt	ccaccaccac	gcattgtgacc	tcaggggtcc	gggagatcat	gaggggtgtcc	2940
ttgggttttg	gggggaagag	gaagactgac	ggtcccccac	ggagttcagg	tgctgggcac	3000
ggtgggcatg	tgtgagtttt	gtcacaagat	ttgggtcaa	ctttcttgct	caccttggtg	3060
ttgctgggct	tgtgattcac	gttgacagatg	taggtctggg	tgcccaagct	gctggagggc	3120
acgggtcacca	cgctgctgag	ggagtagagt	cctgaggact	gtaggacagc	cgggaagggtg	3180
tgacacgcgc	tggtcagggc	gcctgagttc	cacgacaccg	tcaccgggtc	ggggaagtag	3240
tccttgacca	ggcagcccg	ggccgctgtg	ccccagagg	tgctcttggg	ggaggggtgcc	3300
agggggaaga	ccgatgggac	cactagtgca	acgttgacta	agaatttcat	gcggccgcgt	3360
acgattgtaa	ataaaatgta	atttacagta	tagtatttta	attaatatac	aaatgatttg	3420
ataataattc	ttatttaact	ataatatatt	gtgttgggtt	gaattaaagg	tccccggcatc	3480
ctcaaatgca	taatatcata	gtcccccttg	ttgtaagtga	tgctgatttc	tgaatctttg	3540
taaaatagca	cacaggactc	caacgcgttt	ggcgttttat	tttcttgctc	gaggatatca	3600
tggagataat	taaaatgata	accatctcgc	aaataaataa	gtattttact	gttttcgtaa	3660
cagttttgta	ataaaaaaac	ctataaatat	tccggattat	tcataccgtc	ccaccatcgg	3720
gcgtgctagc	ggatccatgg	tgggaccctg	catgctgctg	ctgctgctgc	tgctaggcct	3780
cacccagtg	cactctgttc	cgcctctcct	ctgaggagct	tcaagccaac	aaggccacac	3840
tggtgtgtct	cataagtga	ttctaccctg	gagccgtgac	agtggcctgg	aaggcagata	3900
gcagccccgt	caaggcggga	gtggagacca	ccacaccctc	caaacaaagc	aacaacaagt	3960
acgcggccag	cagctacctg	agcctgacgc	ctgagcagtg	gaagtccac	aaaagctaca	4020
gctgccaggt	cacgcataga	gggagcaccg	tggagaagac	agtggccctc	acagaatgtt	4080
catagtaaaa	gcttgcgtt	ggatggaaag	gaaaagagtt	ctacaggga	acttgacccc	4140
gcttcattga	agacagcttc	ccattgttta	acgaccaaga	agtgatggat	gttttccttg	4200
ttgtcaacat	gcgtccact	agaccaacc	gttgttacaa	attcctggcc	caacacgctc	4260
tgctgtgcga	ccccgactat	gtacctcatg	acgtgattag	gatcgctcag	ccttcatggg	4320
tgggcagcaa	caacgagtac	cgcctcagcc	tggctaagaa	gggcggcggc	tgcccaataa	4380
tgaaccttca	ctctgagtac	accaactcgt	tcgaacagtt	catcgatcgt	gtcatctggg	4440
agaacttcta	caagcccata	gtttacatcg	gtaccgactc	tgctgaagag	gaggaaattc	4500
tccttgaagt	ttccctgggtg	ttcaaagtaa	aggagtttgc	accagacgca	cctctgttca	4560
ctggtccggc	gtattaaaac	acgatacatt	gttattagta	catttattaa	gcgctagatt	4620
ctgtgcgttg	ttgattttaca	gacaattgtt	gtacgtattt	taataattca	ttaaatttat	4680
aatcttttag	gtgggtatgt	agagcgaaaa	tcaaaatgatt	ttcagcgctc	ttatatctga	4740
attttaaata	taaatcctca	atagatttgt	aaaataggtt	tcgattagtt	tcaaacaagg	4800
gttgtttttc	cgaaccgatg	gctggactat	ctaattggatt	ttcgctcaac	gccacaaaac	4860
ttgccaaatc	ttgtagcagc	aatctagctt	tgctgatatt	cgtttgtgtt	ttgttttgta	4920
ataaagggtc	gacgtcgttc	aaaatattat	gcgcttttgt	atttctttca	tcactgtcgt	4980
tagtgtacaa	ttgactcgac	gtaaacacgt	taaaataaagc	tagcttggac	atattttaaca	5040
tcgggcgtgt	tagctttatt	aggccgatta	tcgtcgtcgt	cccaaccctc	gtcgttagaa	5100
gttgcttccg	aagacgattt	tgccatagcc	acacgacgcc	tattaattgt	gtcggctaac	5160
acgtccgcga	tcaaatttgt	agttgagctt	tttggaatta	tttctgattg	cgggcgtttt	5220
tgggcgggtt	tcaatctaac	tgtgcccgat	tttaattcag	acaacacggt	agaaagcgat	5280
ggtgcaggcg	gtggtaacat	ttcagacggc	aaatctacta	atggcggcgg	tggtggagct	5340
gatgataaat	ctaccatcgg	tggaggcgca	ggcggggctg	gcggcggagg	cggaggcgga	5400
ggtggtggcg	gtgatgcaga	cggcggttta	ggctcaaatg	tctctttagg	caacacagtc	5460
ggcacctcaa	ctattgtact	ggtttcgggc	gccgtttttg	gtttgaccgg	tctgagacga	5520
gtgcgatttt	tttcgtttct	aatagcttcc	aacaattgtt	gtctgtcgtc	taaagggtga	5580
gcgggttgag	gttccgtcgg	cattgggtgga	gcgggcggca	attcagacat	cgatgggtgg	5640
ggtggtgggt	gaggcgctgg	aatggttaggc	acgggagaag	gtggtggcgg	cgggtgccgc	5700
ggtataattt	gttctgggtt	agtttggtcg	cgcacgattg	tgggcaccgg	cgcaggcgcc	5760
gctggctgca	caacggaagg	tcgtctgctt	cgaggcagcg	cttggggtgg	tggcaattca	5820
atattataat	tggatacaaa	atcgtaaaaa	tctgctataa	gcattgtaat	ttcgctatcg	5880
tttaccgtgc	cgatatttaa	caaccgctca	atgtaagcaa	ttgtattgta	aagagattgt	5940
ctcaagctcc	gcacgccgat	aacaagcctt	ttcattttta	ctacagcatt	gtagtggcga	6000
gacacttcgc	tgctgtcgac	tcgagttcta	tagtgtcacc	taaategtat	gtgtatgata	6060
cataagggtta	tgtatttaatt	gtagccgcgt	tctaaccgaca	atatgtccat	atggtgcact	6120
ctcagtacaa	tctgctctga	tgccgcgatg	ttaagccagc	cccagacccc	gccaacaccc	6180
gctgacgcgc	cctgacgggc	ttgtctgctc	ccggcatccg	cttacagaca	agctgtgacc	6240
gtctccggga	gctgcattgt	tcagaggttt	tcaccgtcat	caccgaaaacg	cgcgagagga	6300
aagggcctcg	tgatacgctt	atttttatag	gttaattgtca	tgataataat	ggtttcttag	6360

```

acgtcagggtg gcacttttctg gggaaatgtg cgcggaaccc ctatttgttt atttttctaa 6420
atacattcaa atatgtatcc gctcatgaga caataaccct gataaatgct tcaataatat 6480
tgaaaaagga agagtatgag tattcaacat ttccgtgtcg cctttattcc cttttttgcg 6540
gcattttgccc ttctgttttt tgctcaccca gaaacgctgg tgaaagtaaa agatgctgaa 6600
gatcagttgg gtgcacgagt gggttacatc gaactggatc tcaacagcgg taagatcctt 6660
gagagttttc gccccaaga acgtttttcca atgatgagca cttttaaagt tctgctatgt 6720
ggcgcggtat tatcccgat tgacgcccgg caagagcaac tcggtcgccc catacactat 6780
tctcagaatg acttggttga gtactacca gtcacagaaa agcatcttac ggatggcatg 6840
acagttaagag aattatgcag tgctgccata accatgagtg ataactactgc ggccaactta 6900
ctttctgaaa cgatcggagg accgaaggag ctaaccgctt ttttgcaaa catgggggat 6960
catgtaactc gccttgatcg ttgggaaccg gagctgaatg aagccatacc aaacgacgag 7020
cgtgacacca cgatgcctgt agcaatggca acaacggtgc gcaaactatt aactggcgaa 7080
ctacttactc tagcttccc gcaacaatta atagactgga tggaggcgga taaagtgtca 7140
ggaccacttc tgcgctcgcc ccttcgggct ggctgggtta ttgctgataa atctggagcc 7200
gggtgagcgtg ggtctcgcg tatcattgca gcaactatgg tagaacgaaa tagacagatc 7320
atcgtagtta tctacacgac ggggagtcag gcaactatgg atgaacgaaa tagacagatc 7380
gctgagatag gtgcctcact gattaagcat tggttaactgt cagaccaagt ttactcatat 7440
atactttaga ttgatttaaa acttcatttt taatttaaaa ggatctaggt gaagatcctt 7500
tttgataatc tcatgaccaa aatcccttaa cgtgagtttt cgttccactg agcgtcagac 7560
cccgtagaaa agatcaaagg atcttcttga gatccttttt ttctgcgctg aatctgctgc 7620
ttgcaacaaa aaaaaccacc gctaccagcg gtggtttgtt tgccggatca agagctacca 7680
actcttttcc cgaaggtaac tggcttcagc agagcgcaga taccaaatac tgccttctta 7740
gtgtagccgt agttaggcca ccacttcaag aactctgtag caccgcctac atacctcgct 7800
ctgctaatac tgttaccagt ggctgctgcc agtggcgata agtcgtgtct taccgggttg 7860
gactcaagac gatagttacc ggataaggcg cagcggctcg gctgaacggg gggttcgtgc 7920
acacagccca gcttgagcgg aacgacctac accgaactga gataacctaca gcgtgagcat 7980
tgagaaagcg ccacgcttcc cgaagggaga aaggcggaca ggtatccggt aagcggcagg 8040
gtcggaaacg gagagcgcac gagggagctt ccagggggaa acgctggta tctttatagt 8100
cctgtcgggt ttccgccact ctgacttgag cgtcgatttt tgtgatgctc gtcagggggg 8160
cggagcctat ggaaaaacgc cagcaacgcg gcctttttac ggttcctggc cttttgctgg 8220
ccttttgctc acatgttctt tcctgcgtta tcccttgatt ctgtggataa ccgtattacc 8280
gcctttgagt gagctgatac cgctcgccgc agccgaacga ccgagcgcag cgagtcagtg 8340
agcggaggaag cgggaagagcg cccaatacgc aaaccgcctc tcccgcgcg ttggccgatt 8400
cattaatgca ggttaacctg gcttatcgaa attaatacga ctcaactatg ggagaccggc 8415
agatcgatct gtcga

```

<210> 8

<211> 46

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 8

cagatcacta gtttttatgg tcgtgtacat ttcttacatc tatgcg

46

<210> 9

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 9
ctgagtaggc ctgaggctac agctctccct gggc 34

<210> 10
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 10
ggaagtagtc cttgaccagg cag 23

<210> 11
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 11
gggaaaaggg ttgggcccgga tgcac 25

<210> 12
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 12
gatgaagaca cttggtgcag ccacag 26

<210> 13
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 13
ggaacagagt gacactgggt gcagccttgg gctg 34

<210> 14

<400> 14
000

<210> 15
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 15
actagtgcaa cggtgactaa gaatttcattg cggccgc

37

<210> 16
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 16
gcggccgcat gaaattctta gtcaacgttg cactagt

37

<210> 17
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 17
gcggatccat ggtgggaccc tgcattgtgc tctgtctgct gctgctaggc ctggaattcc 60

<210> 18
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 18
ggaattccag gcctagcagc agcagcagca gcagcatgca gggccccacc atggatccgc 60

<210> 19
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 19
tgtgactagt atgtatcggc ccatcgggtct tccccct

37

<210> 20
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 20
 tttctagact attatttacc cggagacagg gagag

35

<210> 21
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 21
 cttagcctat gtatcaccaa gtgtcttcat cttcccgcca tct

43

<210> 22
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 22
 cccaagcttc tattaacact ctcccctgtt gaagct

36

<210> 23

<400> 23
 000

<210> 24

<400> 24
 000

<210> 25
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 25
aaatgataac catctcgc

18

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 26
tttactgttt tcgtaacagt ttg

24

<210> 27
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 27
ttggagggcg ttatccacct tc

22

<210> 28
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 28
ctgtaaatca acaacgcaca g

21

<210> 29
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 29
caacaacgca cagaatctag

20

<210> 30
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 30

gggaccttta attcaaccac acac

24

<210> 31

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 31

aaacgcgttg gactcttg tgc

23

<210> 32

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 32

ggaagtagtc cttgaccagg cag

23

<210> 33

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 33

ctgagttcca cgacaccgac ac

22

<210> 34

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 34

tagagtcctg aggactgtag gac

23

<210> 35

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 35

ggtcgttaac aatggggaag ctg

23

<210> 36

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 36

tttactgttt tcgtaacagt ttg

24

<210> 37

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 37

ggtcgttaac aatggggaag ctg

23

<210> 38

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 38

tcaccatgga ctggacctgg ag

22

<210> 39

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 39

accatggaca tactttgttc cacgc

25

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 40
accatggaca cactttgctc cacgc

25

<210> 41
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 41
accatggagt ttgggctgag ctg

23

<210> 42
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 42
accatggaac tggggctccg ctg

23

<210> 43
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 43
aagaacatga aacacctgtg gttcttc

27

<210> 44
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 44
atcatggggt caaccgcat cct

23

<210> 45
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 45
acaatgtctg tctccttct catc 24

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 46
acatgagggt ccccgctcag c 21

<210> 47
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 47
tcagctcctg gggctgctaa tg 22

<210> 48
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 48
cttcctcctg ctactctggc tc 22

<210> 49
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 49
gcagaccag gtcttcattt ctc

23

<210> 50
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 50
ccaggttcac ctcctcagct tc

22

<210> 51
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 51
ggtttctgct gctctgggtt cc

22

<210> 52
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 52
tcactgyrca gggtcctggg c

21

<210> 53
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 53
actcaggrca caggrtcctg g

21

<210> 54
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 54

ttgcttactg cacaggatcc gtg

23

<210> 55

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 55

cttgctcact ttacagggtc tgtg

24

<210> 56

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 56

ctcactcttt gcatagggtc tgtg

24

<210> 57

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 57

tcaacctcta cacaggctct attg

24

<210> 58

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 58

ctcactctct gcacagkctc tgwg

24

<210> 59

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 59

cattttctcc acaggtctct gtgc

24

<210> 60

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 60

cctccactgs acaggtctc tc

22

<210> 61

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 61

ctctcactgc acaggttccc tc

22

<210> 62

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 62

cgctcactgc acaggttctt gg

22

<210> 63

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 63

cttgctgccc aggtccaat tc

22

<210> 64
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 64
 tgcttatgga tcaggagtgg attc

24

<210> 65
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 65
 cagtctcctc acagggtccc tc

22

<210> 66
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 66
 tcactcactc tgcagtgtca gtg

23

<210> 67
 <211> 70
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 67
 cagatcacta gtttttatgg tcgtgtacat ttcttacatc tatgcggaga tgaaattggt 60
 ggagtctggg 70

<210> 68
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 68
ctgagtaggc ctgaggctac agctctccct gggcgaagtt gtgttgactc agtctcc 57

<210> 69
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 69
ctgagttcca cgacaccgtc ac 22

<210> 70
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 70
gggaattctc acaggagacg agg 23

<210> 71
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 71
ttggagggcg ttatccacct tc 22

<210> 72
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 72
gaagtcactt atgagacaca ccag 24

<210> 73
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 73

ggaagtagtc cttgaccagg cag

23

<210> 74

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 74

gggaaaagggt ttgggcccga tgcac

25

<210> 75

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 75

gggaaaagggt ttgggcccga tgcac

25

<210> 76

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 76

ggaacagagt gacactgggt gcagccttgg gctg

34

<210> 77

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 77

tgccgtcggc aggaggtatt tcattatgac tgtctccttg ctattatgaa cattctgtag 60
gggcca 66

<210> 78

<211> 36

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 78
gtcagcccaa ggctgcaccc agtgtcactc tgttcc 36

<210> 79
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 79
cgtatcaagc ttttactatg aacattctgt aggggccac 39

<210> 80
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 80
cctttgataa caccca 16

<210> 81
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 81
gtgttatcaa agg 13

<210> 82
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 82
ctagtttgat aagggcc 17

<210> 83
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 83
 cttatcaaa

9

<210> 84
 <211> 16
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 84
 cctttgataa caccaa

16

<210> 85

<400> 85
 000

<210> 86
 <211> 371
 <212> DNA
 <213> Homo sapiens

<400> 86
 gacatgttgt tgggtgaatc ggggggaggc ctggtccagc cgggggagtc cctgagactc 60
 tcctgtgtgg cctctagatt cacctttaga acgttttgga tgacctgggt ccgccaactt 120
 ccagggaagg ggctggagtg ggtggccaat ataaatcaag atggcagtca gacgtatcat 180
 gcggactctg taaagggccg atttaccatc tccagagaca acggcaggaa ctccctattt 240
 ttacaaatga caagtctgag agtcgcggac acggctatat attactgtgc gactaatgaa 300
 acgtccagtg gcctggactg ctggggccaa ggaaccctgg tcactgtctc ctcagcttcc 360
 accaagggcc c 371

<210> 87
 <211> 349
 <212> DNA
 <213> Homo sapiens

<400> 87
 gaaatcgtgt tgacacagtc tccagccacc ctgtcttcgt ctccaggaga cagagtcgcc 60
 ctctcctgca gggccagtca gactgtaaga agttacttaa gttggtatca acagaaggct 120
 ggccaggctc ccaggctcct catccataat gcatccagta gggccactgg catcccggcc 180
 agattcagtg gcagtgggtc tgggacagac ttcactctca ccatcagtcg cctagagact 240
 gaagatgctg cagtttatta ctgtcagcaa ctttatttct ggccctccgat attatttttc 300
 ggccctggga ccaaagtga tatcacacga actgtggctg caccaagtg 349

<210> 88
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 88
 gaagtcactt atgagacaca ccag

24

<210> 89
 <211> 9182
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Plasmid pTRABac/9F12
 DNA sequence

<400> 89
 gcagttcgtt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
 gcggcggtgcc gcacgcgacg cacaagtatc tgtacaccga atgatcgtcg ggcgaaggca 120
 cgtcggcctc caagtggcaa tattggcaaa ttcgaaaata tatacagttg gggtgtttgc 180
 gcatatctat cgtggcggtg ggcatgtacg tccgaacgtt gatttgcag caagccgaaa 240
 ttaaatacatt gcgattagtg cgattaaaac gttgtacatc ctgcgtttta atcatgccgt 300
 cgattaaatc gcgcaatcga gtcaagtgat caaagtgtgg aataatgttt tctttgtatt 360
 cccgagtcga gcgacgcgag tattttaaca aactagccat cttgtaagtt agtttcattt 420
 aatgcaactt tatccaataa tatattatgt atcgacgtc aagaattaac aatgcgccc 480
 ttgtcgcac tcaacacgac tatgatagag atcaaataaa gcgcgaatta aatagcttgc 540
 gacgcaacgt gcacgatctg tgcacgcgtt ccggcacgag ctttgattgt aataagtttt 600
 tacgaagcga tgacatgacc cccgtagtga caacgatcac gcccaaaaaga actgccgact 660
 acaaaattac cgagtatgtc ggtgacgtta aaactattaa gccatccaat cgaccgttag 720
 tcgaatcagg accgctggtg cgagaagccg cgaagtatgg cgaatgcac gtataacgtg 780
 tggagtcgcg tcattagagc gtcattgtta gacaagaaag ctacatattt aattgatccc 840
 gatgatttta ttgataaatt gaccctaact ccatacacgg tattctacaa tggcgggggt 900
 ttggtcaaaa ttcccgact gcgattgtac atgctgttaa cggctccgcc cactattaat 960
 gaaattaaaa attccaattt taaaaaacgc agcaagagaa acatttgtat gaaagaatgc 1020
 gtagaaggaa agaaaaatgt cgtcgacatg ctgaacaaca agattaatat gcctccgtgt 1080
 ataaaaaaa tattgaacga tttgaaagaa aacaatgtac cgcgcggcgg tatgtacagg 1140
 aagaggttta tactaaactg ttacattgca aacgtggttt cgtgtgccaa gtgtgaaaac 1200
 cgatgtttta tcaaggctct gacgcatttc tacaaccacg actccaagtg tgtgggtgaa 1260
 gtcattgcac ttttaataca atcccaagat gtgtataaac caccaaactg ccaaaaaatg 1320
 aaaactgtcg acaagctctg tccgtttgct ggcaactgca agggctctca tcctatttgt 1380
 aattattgaa taataaaaaca attataaatg ctaaaattgt tttttattaa cgatacaaac 1440
 caaacgcaac aagaacattt gtagtattat ctataattga aaacgcgtag ttataatcgc 1500
 tgaggtaata tttaaaatca ttttcaaatg attcacagtt aatttgcgac aatataattt 1560
 ttttttcaca taaactagac gccttgcgt cttcttcttc gtattccttc tcttttcoat 1620
 tttctctctc ataaaaatta acatagttat tatcgatcc atatatgtat ctatcgtata 1680
 gagtaaatatt tttgtgtgca taaatatata tgtctttttt aatgggggtg atagtaccgc 1740
 tgcgcatagt ttttctgtaa tttacaacag tgctattttc tggtagttct tcggagtgtg 1800
 ttgctttaat tattaatttt atataatcaa tgaatttggg atcgtcgggt ttgtacaata 1860
 tgttgccggc atagtacgca gcttcttcta gttcaattac accatttttt agcagcaccg 1920
 gattaacata actttccaaa atgttgtacg aaccgttaaa caaaaacagt tcacctccct 1980
 tttctatact attgtctgag agcagttgtt tgtgtttaa aataacagcc attgtaatga 2040
 gacgcacaaa ctaatatcac aaactggaaa tgtctatcaa tatatagttg ctgatattct 2100

cccagcatgc	ctgctattgt	cttcccaatc	ctcccccttg	ctgtcctgcc	ccacccacc	2160
ccccagaata	gaatgacacc	tactcagaca	atgcgatgca	atttcctcat	tttattagga	2220
aaggacagtg	ggagtggcac	cttccagggt	caaggaaggc	acgggggagg	ggcaaacac	2280
agatggctgg	caactagaag	gcacagtcga	ggctgatcag	cgagctctag	tctagactat	2340
tatttaccgg	gagacagggg	gaggctcttc	tgcgtgtagt	ggttgtgcag	agcctcatgc	2400
atcacggagc	atgagaagac	gttccccctgc	tgccacctgc	tcttgtccac	ggtgagcttg	2460
ctgtagagga	agaaggagcc	gtcggagtcc	agcacgggag	gcgtggtcct	gtagtgttgc	2520
tccggctgcc	cattgctctc	ccactccacg	gcgatgtcgc	tgggatataga	gcctttgacc	2580
aggcagggtca	ggctgacctg	gttcttgggtc	agctcatccc	gggatggggg	cagggtgtac	2640
acctgtgggt	ctcggggctg	ccctttgggt	ttggagatgg	ttttctcgat	gggggctggg	2700
agggtcttgg	tggagacctt	gcacttgtac	tccttgccat	tcagccagtc	ctgggtgcagg	2760
acgggtgagga	cgctgaccac	acggtacgtg	ctgttgtact	gctcctcccg	cggtttgtgc	2820
ttggcattat	gcacctccac	gccgtccacg	taccagttga	acttgacctc	aggggtcttcg	2880
tggctcacgt	ccaccaccac	gcagtgtgacc	tcaggggtcc	gggagatcat	gagggtgtcc	2940
ttgggttttg	gggggaagag	gaagactgac	ggcccccca	ggagttcagg	tgccgggtggg	3000
catgtgtgag	ttttgtcaca	agatttgggc	tcaactttct	tgtccacctt	ggtgtgtctg	3060
ggcttgtgat	tcacgttgca	gatgtaggtc	tgggtgccca	agctgctgga	gggcacggtc	3120
accacgtctg	tgaggagagta	gagtcctgag	gactgtagga	cagccgggaa	ggtgtgcacg	3180
ccgctggtca	gggcgcctga	gttccacgac	accgtcacccg	gttcggggaa	gtagtcttgc	3240
accaggcagc	ccaggggcgc	tgtgccccca	gaggtgctct	tggaggaggg	tgccaggggg	3300
aagaccgatg	ggcccttggg	ggaggctgag	gagacgggtga	ccagggttcc	ctggccccag	3360
gagtcaaagt	agtagtgggc	cagccactgt	tttcccgctt	tcgcacagta	ataaacggcc	3420
gtgtcctcgg	ctctcaggct	gttcaagtgc	agatatagcg	tgttcatgga	attgtctctg	3480
gagatggtca	atcgcccggt	cacggagtct	gcataatatg	tggtagtctc	tctagcacta	3540
atagccgcga	cccactccag	ccccatccct	ggagcctggc	ggacccagct	catggcatag	3600
ctgtctaaagc	tgaatccaga	ggctgcacag	gagagtctca	cggaccccc	aggctgtacc	3660
aagcctcccc	cagactgcac	cagctgcacc	tcgtccgcat	agatgtaaga	aatgtacacg	3720
accataaaaa	ctagtgcac	gttgactaag	aatttcatgc	ggccgcgtac	gattgtaaat	3780
aaaatgtaat	ttacagtata	gtattttaat	taataataca	atgatttgat	aataattctt	3840
atttaactat	aataatattgt	gttgggttga	attaaaggtc	ccggcatcct	caaatgcata	3900
atatctatgt	cccccttgtt	gtaagtgatg	cgtatttctg	aatctttgta	aaatagcaca	3960
caggactcca	acgcgttttg	cgttttattt	tcttgctcga	ggatatcatg	gagataatta	4020
aaatgataac	catctcgcaa	ataaataagt	attttactgt	tttcgtaaca	gttttghtaat	4080
aaaaaaacct	ataaatattc	cggattatct	ataccgtccc	accatcgggc	gtgctagcgg	4140
atccatgggtg	ggaccctgca	tgtctgtctg	gctgtgctg	ctaggcctga	ggctacagct	4200
ctccctgggc	atcgacatcc	agatgaccca	gtctccatcc	tcctgtctg	catctgtagg	4260
agacagagtc	atcatcactt	gccgggcaag	tcagagtatt	agcacctatt	taaattggta	4320
tcagcagaaa	ccagggaag	cccctaaact	cctgatctat	tatgcaacca	atttgcaaaag	4380
tgggggtcca	tcaaggttca	gtggcagtgg	atctgggaca	gatttcaact	tcaccatcag	4440
cagtctgcaa	cctgaagatt	ttgcgactta	ttattgtcaa	cagagtcca	acaccgtcac	4500
tttcggccct	gggaccaaag	tggatatgaa	gactgtggct	gcaccaagtg	tcttcatctt	4560
cccgccatct	gatgagcagt	tgaatctgg	aactgcctct	gttgtgtgcc	tgtgataata	4620
cttctatccc	agagaggcca	aagtacagtg	gaaggtggat	aacgccctcc	aatcgggtaa	4680
ctcccaggag	agtgtcacag	agcaggacag	caaggacagc	acctacagcc	tcagcagcac	4740
cctgacgctg	agcaaagcag	actacgagaa	acacaaaagtc	tacgcctgcg	aagtcaccca	4800
tcaggggcctg	agctcgcccg	tcacaaagag	cttcaacagg	ggagagtgtt	aatagaagct	4860
tgtcgttggg	tggaaaaggaa	aagagtctta	cagggaaact	tggacccgct	tcattggaaga	4920
cagcttcccc	attgttaacg	accaagaagt	gatggatgtt	ttccttggtg	tcaacatgcg	4980
tcccactaga	cccaaccgtt	gttatacaatt	cctggcccaa	cacgctctgc	gttgcgaccc	5040
cgactatgta	cctcatgacg	tgattaggat	cgtcgagcct	tcattgggtg	gcagcaacaa	5100
cgagtaccgc	atcagcctgg	ctaagaaggg	cggcggtctg	ccaataatga	accttcactc	5160
tgagtacacc	aactcgttcg	aacagttcat	cgatcgtgtc	atctgggaga	acttctacaa	5220
gcccacgtt	tacatcggtg	ccgactctgc	tgaagaggag	gaaattctcc	ttgaagtctc	5280
cctggtgttc	aaagtaaagg	agtttgcacc	agacgcacct	ctgttactg	gtccggcgta	5340
ttaaaacacg	atacattgtt	attagtacat	ttattaagcg	ctagattctg	tgcgttgttg	5400
atttacagac	aattgttgtg	cgtattttta	taattcatta	aatttataat	ctttagggtg	5460
gtatgttaga	gcgaaaatca	aatgattttc	agcgtcttta	tatctgaatt	taaatattaa	5520
atcctcaata	gatttgtaaa	atagggtttcg	attagtttca	aacaagggtt	gtttttccga	5580

accgatggct	ggactatcta	atggattttc	gctcaacgcc	acaaaacttg	ccaaatcttg	5640
tagcagcaat	ctagctttgt	cgatattcgt	ttgtgttttg	ttttgtaata	aagggttcgac	5700
gtcgttcaaa	atattatgcg	cttttgtatt	tctttcatca	ctgtcgttag	tgtacaattg	5760
actcgacgta	aacacgttaa	ataaagctag	cttggacata	tttaacatcg	ggcgtgttag	5820
ctttattagg	cggattatcg	tcgtcgctcc	aacctcgtc	gttagaagtt	gcttcggaag	5880
acgattttgc	catagccaca	cgacgcctat	taattgtgtc	ggctaacacg	tccgcgatca	5940
aatttgtagt	tgagcttttt	ggaattatatt	ctgattgcgg	gcgttttttg	gcgggtttca	6000
atctaactgt	gcccgatatt	aattcagaca	acacgttaga	aagcgatggg	gcaggcgggtg	6060
gtaacatttc	agacggcaaa	tctactaatg	gcggcgggtg	tggagctgat	gataaatcta	6120
ccatcgggtg	aggcgagggc	ggggctggcg	gcggaggcgg	aggcgagggt	ggtggcgggtg	6180
atgcagacgg	cggtttaggc	tcaaatgtct	ctttaggcaa	cacagtcggc	acctcaacta	6240
ttgtactggg	ttcgggcggc	gtttttgggt	tgaccgggtc	gagacgagtg	cgattttttt	6300
cgttttctaat	agcttccaac	aattgttgtc	tgctgtctaa	aggtgcagcg	ggttgagggtt	6360
ccgtcggcat	tgggtggagcg	ggcggcaatt	cagacatcga	tgggtgggtg	ggtgggtggag	6420
gcgctgggaat	gttaggcacg	ggagaagggtg	gtggcggcgg	tgccgcgggt	ataatttgtt	6480
ctggtttagt	ttgttcgcgc	acgattgtgg	gcaccggcgc	aggcgccgct	ggctgcacaa	6540
cggaaggtcg	tctgcttcga	ggcagcgctt	gggtgggtgg	caattcaata	ttataattgg	6600
aatacaaatc	gtaaaaatct	gctataagca	ttgtaatttc	gctatcgttt	accgtgcgca	6660
tatttaacaa	ccgctcaatg	taagcaattg	tattgtaaag	agattgtctc	aagctccgca	6720
cgccgataac	aagccttttc	atttttacta	cagcattgta	gtggcggagac	acttcgctgt	6780
cgctcgactcg	agttctatag	tgtcacctaa	atcgtagtg	tatgatacat	aaggttatgt	6840
attaattgta	gccgcgttct	aacgacaata	tgtccatatg	gtgcactctc	agtacaatct	6900
gctctgatgc	cgcatagtta	agccagcccc	gacacccgcc	aacacccgct	gacgcgcctt	6960
gacgggcttg	tctgctcccg	gcctccgctt	acagacaagc	tgtgaccgtc	tccgggagct	7020
gcattgtgtca	gaggttttca	ccgtcatcac	cgaaacgcgc	gagaggaaag	ggcctcgatga	7080
tacgcctatt	tttatagggt	aatgtcatga	taataatggg	ttcttagacg	tcagggtggca	7140
cttttcgggg	aaatgtgcgc	ggaaccccta	tttgtttatt	tttctaaata	cattcaaata	7200
tgtatccgct	catgagacaa	taaccctgat	aaatgcttca	ataatattga	aaaaggaaga	7260
gtatgagtat	tcaacatttc	cgtgtcgccc	ttattccctt	ttttgcggca	ttttgccttc	7320
ctgtttttgc	tcacccagaa	acgctgggtga	aagtaaaaaga	tgctgaagat	cagttgggtg	7380
cacgagtggg	ttacatcgaa	ctggatctca	acagcggtaa	gacccctgag	agttttcgcc	7440
ccgaagaacg	ttttccaatg	atgagcactt	ttaaagttct	gctatgtggc	gcggtattat	7500
cccgtattga	cgccgggcaa	gagcaactcg	gtcgcggcat	acactattct	cagaatgact	7560
tggttagtag	ctcaccagtc	acagaaaagc	atcttacgga	tggcatgaca	gtaagagaat	7620
tatgcagtcg	tgcataaacc	atgagtga	acactgcggc	caacttactt	ctgacaacga	7680
tgggaggacc	gaaggagcta	accgcttttt	tgcacaacat	gggggatcat	gtaactcgcc	7740
ttgatcggtg	ggaaccggag	ctgaatgaag	ccataccaaa	cgacgagcgt	gacaccacga	7800
tgctgtagc	aatggcaaca	acgttgcgca	aactattaac	tggcgaacta	cttactctag	7860
cttcccggca	acaattaata	gactggatgg	aggcggataa	agttgcagga	ccacttctgc	7920
gctcggccct	tccggctggc	tggttttattg	ctgataaatc	tggagccggg	gagcgtgggt	7980
ctcgcggtat	cattgcagca	ctggggccag	atggtaagcc	ctcccgatc	gtagtattct	8040
acacgacggg	gagtcaggca	actatggatg	aacgaaatag	acagatcgct	gagatagggtg	8100
cctcactgat	taagcattgg	taactgtcag	accaagttta	ctcatatata	ctttagattg	8160
atttaaaact	tcatttttta	tttaaaagga	tctagggtgaa	gacccctttt	gataatctca	8220
tgacaaaaat	cccttaacgt	gagttttcgt	tccactgagc	gtcagacccc	gtagaaaaga	8280
tcaaaggatc	ttcttgagat	cttttttttc	tgcgcgtaat	ctgctgcttg	caaacaaaaa	8340
aaccaccgct	accagcgggtg	gtttgtttgc	cggatcaaga	gctaccaact	ctttttccga	8400
aggtaactgg	cttcagcaga	gcgcagatac	caaatactgt	ccttctagt	tagccgtagt	8460
taggccacca	cttcaagaac	tctgtagcac	cgccacata	cctcgctctg	ctaactcctgt	8520
taccagtggc	tgtgcccagt	ggcgataagt	cgtgtcttac	cgggttggac	tcaagacgat	8580
agttaccgga	taaggcgag	cggtcgggct	gaacgggggg	ttcgtgcaca	cagcccagct	8640
tggagcgaac	gacctacacc	gaactgagat	acctacagcg	tgagcattga	gaaagcgcca	8700
cgcttcccga	agggagaaaag	gcggacaggt	atccggttaag	cggcagggtc	ggaacaggag	8760
agcgcacgag	ggagcttcca	gggggaaaacg	cctggatatct	ttatagtcct	gtcgggtttc	8820
gccacctctg	acttgagcgt	cgattttttgt	gatgctcgtc	agggggggcg	agcctatgga	8880
aaaacgccag	caacgcggcc	tttttacgggt	tcttgccctt	ttgctggcct	tttgctcaca	8940
tgttctttcc	tgcgttatcc	cctgattctg	tggataaccg	tattaccgcc	tttgagttag	9000
ctgataccgc	tcgcccgcagc	cgaacgaccg	agcgcagcga	gtcagtgagc	gaggaagcgg	9060

aagagcgccc aatacgcaaa ccgcctctcc ccgcgcgttg gccgattcat taatgcaggt 9120
 taacctggct tatcgaaatt aatacgactc actataggga gaccggcaga tcgatctgtc 9180
 ga 9182

<210> 90
 <211> 8435
 <212> DNA
 <213> Unknown Organism

<220>
 <223> Description of Unknown Organism: pTRABacHuLCHC1
 DNA sequence

<400> 90
 gcagttcggt gacgccttcc tccgtgtggc cgaacacgtc gagcgggttg tcgatgacca 60
 gggcggtgcc gcacgcgacg cacaagtatc tgtacaccga atgatcgtcg ggcgaaggca 120
 cgtcggcctc caagtggcaa tattggcaaa ttcgaaaata tatacagttg ggttgtttgc 180
 gcatatctat cgtggcggtg ggcattgtacg tccgaacggt gatttgcatt caagccgaaa 240
 ttaaatcatt gcgattagt gcattaaaac gttgtacatc ctgcctttta atcatgccgt 300
 cgattaaatc gcgcaatcga gtcaagtgat caaagtgtgg aataatgttt tctttgtatt 360
 cccgagtcaa gcgcagcgcg tattttaaca aactagccat cttgtaagtt agtttcattt 420
 aatgcaactt tatccaataa tatattatgt atcgcacgtc aagaattaac aatgcgcccg 480
 ttgtcgcatc tcaacacgac tatgatagag atcaaataaa gcgcgaatta aatagcttgc 540
 gacgcaacgt gcacgatctg tgcacgcgtt ccggcacgag ctttgattgt aataagtttt 600
 tacgaagcga tgacatgacc cccgtagtga caacgatcac gcccaaaaaga actgccgact 660
 acaaaattac cgagtatgtc ggtgacgtta aaactattaa gccatccaat cgaccgttag 720
 tcgaatcagg accgctggtg cgagaagccg cgaagtatgg cgaatgcacg gtataacgtg 780
 tggagtcggc tcattagagc gtcattgtta gacaagaaag ctacatattt aattgatccc 840
 gatgatttta ttgataaatt gaccctaact ccatacacgg tattctacaa tggcgggggt 900
 ttggtcaaaa tttccggact gcgattgtac atgtctgtaa cggctccgcc cactattaat 960
 gaaattaaaa attccaattt taaaaaacgc agcaagagaa acatttgtat gaaagaatgc 1020
 gtagaaggaa agaaaaatgt cgtcgacatg ctgaacaaca agattaatat gcctccgtgt 1080
 ataaaaaaa tattgaacga tttgaaagaa aacaatgtac cgcgcggcgg tatgtacagg 1140
 aagaggttta tactaaactg ttacattgca aacgtggttt cgtgtgccaa gtgtgaaaac 1200
 cgatgtttta tcaaggctct gacgcatttc tacaaccacg actccaagtg tgtgggtgaa 1260
 gtcatgcac ttttaataca atcccaagat gtgtataaac caccaaaactg ccaaaaaatg 1320
 aaaactgtcg acaagctctg tccgtttgct ggcaactgca agggctctca tcctatttgt 1380
 aattattgaa taataaaaca attataaatg ctaaaattgt tttttattaa cgatacaaac 1440
 caaacgcaac aagaacattt gtagtattat ctataattga aaacgcgtag ttataatcgc 1500
 tgaggtaata tttaaaatca ttttcaaatg attcacagtt aatttgcgac aatataattt 1560
 tattttcaca taaactagac gccttgtcgt cttctctctc gtattccttc tctttttcat 1620
 ttttctctc ataaaaatta acatagtat tatcgtatcc atatatgtat ctatcgtata 1680
 gagtaaattt tttgttgtea taaatatata tgtctttttt aatgggggtg atagtaccgc 1740
 tgcgcatagt ttttctgtaa tttaacaacg tgctattttc tggtagttct tcggagtgtg 1800
 ttgctttaat tattaaattt atataatcaa tgaatttggg atcgtcgggt ttgtacaata 1860
 tgttgcggc atagtacgca gcttcttcta gttcaattac accatttttt agcagcaccg 1920
 gattaacata actttccaaa atgttgtacg aaccgttaaa caaaaacagt tcacctccct 1980
 tttctatact attgtctcg agcagttgtt tgttgtaaaa aataacagcc attgtaata 2040
 gacgcacaaa ctaatatcac aaactggaaa tgtctatcaa tatatagttg ctgatattc 2100
 cccagcatgc ctgctattgt ctcccaatc ctccccttg ctgtcctgcc ccacccacc 2160
 cccagaata gaatgacac tactcagaca atgcgatgca atttctcat tttattagga 2220
 aaggacagtg ggagtggcac cttccagggt caaggaaggc acgggggagg ggcaaacaa 2280
 agatggctgg caactagaag gcacagtcga ggctgatcag cgagctctag tctagactat 2340
 tatttaccgg gagacaggga gaggtctctc tgcgtgtagt ggttgtgcag agcctcatgc 2400
 atcacggagc atgagaagac gttcccctgc tgccacctgc tcttgtccac ggtgagcttg 2460
 ctgtagagga agaaggagcc gtccggagtc agcacgggag gcgtggtctt gtagttgttc 2520
 tccggctgcc cattgtcttc ccaactccac gcgatgtcgc tgggatagaa gcctttgacc 2580

```

taaatcgtat gtgtatgata cataagggtta tgtattaatt gtagccgcgt tctaacgaca 6120
atatgtccat atgggtgcact ctcagtagcaa tctgctctga tgccgcgatag ttaagccagc 6180
cccgacaccc gccaacaccc gctgacgcgc cctgacgggc ttgtctgctc ccggcatccg 6240
cttacagaca agctgtgacc gtctccggga gctgcatgtg tcagagggtt tcaccgtcat 6300
caccgaaacg cgcgagagga aagggcctcg tgatacgctt atttttatag gttaatgtca 6360
tgataataat gggtttcttag acgtcagggtg gcacttttcg gggaaatgtg cgcggaaccc 6420
ctatttggtt atttttctaa atacattcaa atatgtatcc gctcatgaga caataaccct 6480
gataaatgct tcaataatat tgaaaaagga agagtatgag tattcaacat ttccgtgtcg 6540
cccttattcc cttttttgcg gcattttgccc ttccgtgttt tgctcaccga gaaacgctgg 6600
tgaaagtaaa agatgctgaa gatcagttgg gtgcacgagt ggggttacatc gaactggatc 6660
tcaacagcgg taagatcctt gagagttttc gcccgaaga acgttttcca atgatgagca 6720
cttttaaaat tctgctatgt ggcgcggtat tatcccgtat tgacgcgggg caagagcaac 6780
tcgggtcgcg catacactat tctcagaatg acttggttga gtactacca gtcacagaaa 6840
agcatcttac ggatggcatg acagtaagag aattatgcag tgctgccata accatgagtg 6900
ataacactgc ggccaactta cttctgacaa cgatcggagg accgaaggag ctaaccgctt 6960
ttttgcacaa catgggggat catgtaactc gccttgatcg ttgggaaccg gagctgaatg 7020
aagccatacc aaacgacgag cgtgacacca cgatgcctgt agcaatggca acaacgttgc 7080
gcaaactatt aactggcgaa ctacttactc tagcttcccg gcaacaatta atagactgga 7140
tgaggcgga taaagtgtca ggaccacttc tgctctcgcc ccttccggct ggctggttta 7200
ttgtgataa atctggagcc ggtgagcgtg ggtctcgcgg tatcattgca gcaactgagg 7260
cagatggtaa gccctcccgt atcgtagtta tctacacgac ggggagtcag gcaactatgg 7320
atgaacgaaa tagacagatc gctgagatag gtgctcact gattaagcat tggtaactgt 7380
cagaccaagt ttactcatat ataactttaga ttgattttaa acttcatttt taatttaaaa 7440
ggatctaggt gaagatcctt tttgataatc tcatgaccaa aatcccttaa cgtgagtttt 7500
cgttccactg agcgtcagac cccgtagaaa agatcaaagg atcttcttga gatccttttt 7560
ttctgcgctt aatctgctgc ttgcaaaaaa aaaaaccacc gctaccagcg gtggtttgtt 7620
tgccggatca agagctacca actctttttc cgaaggtaac tggcttcagc agagcgaga 7680
taccaaatac tgtccttcta gtgtagcgtt agttaggcca ccacttcaag aactctgtag 7740
caccgcctac atacctcgct ctgctaacc tggtaccagt ggctgctgcc agtgggcata 7800
agtcgtgtct taccgggttg gactcaagac gatagttacc ggataaggcg cagcggctcg 7860
gctgaacggg ggggttcgtgc acacagccca gcttgagcgg aacgacctac accgaactga 7920
gatacctaca gcgtgagcat tgagaaagcg ccacgcttcc cgaagggaga aaggcgga 7980
ggatccggg aagcggcagg gtcggaacag gagagcgcac gagggagctt ccagggggaa 8040
acgcctggta tctttatagt cctgtcgggt ttcgccacct ctgacttgag cgtcgatttt 8100
tgtgatgtct gtcagggggg cggagcctat ggaaaaacgc cagcaacgcg gcctttttac 8160
ggttcctggc cttttgctgg ccttttgctc acatgttctt tctgctgta tcccctgatt 8220
ctgtggataa ccgtattacc gcctttgagt gagctgatac cgctcgccgc agccgaacga 8280
ccgagcgcag cgagtcagtg agcgaggaag cggaaagagc cccaatacgc aaaccgcctc 8340
tcccgcgcg ttggccgatt cattaatgca ggttaacctg gcttatcgaa attaatacga 8400
ctcactatag ggagaccggc agatcgatct gtcga 8435

```

<210> 91

<211> 8429

<212> DNA

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: pTRABacHuLCHC1
DNA sequence

<400> 91

```

gcagttcggt gacgccttcc tccgtgtggc cgaacacgtc gagcgggtgg tcgatgacca 60
gcggcgtgcc gcacgcgacg cacaagtatc tgtacaccga atgatcgtcg ggcgaaggca 120
cgtcggcctc caagtggcaa tattggcaaa ttcgaaaata tatacagttg ggttggtttgc 180
gcatacttat cgtggcgttg ggcatgtacg tccgaacgtt gatttgcatg caagccgaaa 240
ttaaatcatt gcgattagtg cgattaaaac gttgtacatc ctgcgtttta atcatgccgt 300
cgattaaatc gcgcaatcga gtcaagtgat caaagtgtgg aataatgttt tctttgtatt 360

```

```

ccccagtgcaa ggcgagcgcg tattttaaca aactagccat cttgtaagtt agtttcattt 420
aatgcaactt tatccaataa tatattatgt atcgacgctc aagaattaac aatgcgcccc 480
ttgtcgcatc tcaacacgac tatgatagag atcaaataaa gcgcgaatta aatagcttgc 540
gacgcaacgt gcacgatctg tgcacgcgtt ccggcacgag ctttgattgt aataagtttt 600
tacgaagcga tgacatgacc cccgtagtga caacgatcac gccccaaaaga actgccgact 660
acaaaattac cgagtatgtc ggtgacgtta aaactattaa gccatccaat cgaccgttag 720
tcgaatcagg accgctgggt cgagaagccg cgaagtatgg cgaatgcacg gtataacgtg 780
tggagtcggc tcattagagc gtcattgttta gacaagaaaag ctacatattt aattgatccc 840
gatgatttta ttgataaatt gaccctaact ccatacacgg tattctacaa tggcgggggt 900
ttggtcaaaa ttcccgact gcgattgtac atgctgttaa cggctccgcc cactattaat 960
gaaattaaaa attccaattt taaaaaacgc agcaagagaa acatttgtat gaaagaatgc 1020
gtagaaggaa agaaaaatgt cgtcgacatg ctgaacaaca agattaatat gcctccgtgt 1080
ataaaaaaaaa tattgaacga tttgaaagaa aacaatgtac cgcgcggcgg tatgtacagg 1140
aagaggttta tactaaactg ttacattgca aacgtggttt cgtgtgcca gtgtgaaaac 1200
cgatgtttaa tcaaggctct gacgcatttc tacaaccacg actccaagtg tgtgggtgaa 1260
gtcgtcatc ttttaataca atcccaagat gtgtataaac caccaaaactg ccaaaaaatg 1320
aaaactgtcg acaagctctg tccgtttgct ggcaactgca aggggtctca tcctatttgt 1380
aattattgaa taataaaaca attataaatg ctaaaattgt tttttattaa cgatacaaac 1440
caaacgcaac aagaacattt gtagtattat ctataattga aaacgcgtag ttataatcgc 1500
tgaggtaata tttaaaatca ttttcaaatg atttcagtt aatttgcgac aataaattt 1560
tattttcaca taaactagac gccttgctct cttcttcttc gtattccttc tctttttcat 1620
ttttctctc ataaaaatta acatagttat tatcgtatcc atatatgtat ctatcgtata 1680
gagtaaaattt tttgttgtca taaatatata tgtctttttt aatgggggtg atagtaccgc 1740
tgcgcatagt ttttctgtaa tttacaacag tgctattttc tggtagttct tcggagtgtg 1800
ttgctttaat tattaaattt atataatcaa tgaatttggt atcgtcgggt ttgtacaata 1860
tgttgccggc atagtacgca gcttcttcta gtccaattac accattttt agcagcaccg 1920
gattaacata actttccaaa atgttgtacg aaccgttaaa caaaaacagt tcacctccct 1980
tttctatact attgtctgcg agcagttggt tgttgttaaa aataacagcc attgtaatga 2040
gacgcacaaa ctaatatcac aaactggaaa tgtctatcaa tatatagttg ctgatatctc 2100
cccagcatgc ctgctattgt cttcccaatc ctccccttg ctgtcctgcc ccaccccacc 2160
cccagaata gaatgacacc tactcagaca atgcgatgca atttccctcat tttattagga 2220
aaggacagtg ggagtggcac cttccagggt caaggaaggc acgggggagg ggcaaacaa 2280
agatggctgg caactagaag gcacagtcga ggctgatcag cgagctctag tctagactat 2340
tatttaccgg gagacagggg gaggtctctc tgcgtgtagt ggttgtgcag agcctcatgc 2400
atcacggagc atgagaagac gttcccttgc tgccacctgc tctgtccac ggtgagcttg 2460
ctgtagagga agaaggagcc gtcggagtcc agcacgggag gctgtgtctt gtagtgttct 2520
tccgggtgcc cattgctctc ccactccacg gcgatgtcgc tgggtagaaa gcctttgacc 2580
aggcaggtca ggctgacctg gttcttggtc agctcatccc gggatggggg cagggtgtac 2640
acctgtgggt ctgggggctg ccctttgggt ttggagatgg ttttctcgat gggggctggg 2700
agggctttgt tggagacctt gcacttgtac tccctgccat tcagccagtc ctgggtgcag 2760
acggtgagga cgctgaccac acggtaacgt ctgttgtaact gctcctcccg cggtttgtc 2820
ttggcattat gcacctccac gccgtccacg taccagttga acttgacctc agggctctcg 2880
tggctcacgt ccaccaccac gcattgtgacc tcaggggtcc gggagatcat gagggtgtcc 2940
ttgggttttg gggggaagag gaagactgac ggtcccccca ggagttcagg tgctgggcac 3000
ggtgggcatg tgtgagttt gtcacaagat ttgggtcaa ctttcttgct caccttggtg 3060
ttgctgggct tgtgattcac gttgcagatg taggtctggg tgcccaagct gctggagggc 3120
acggtcacca cgctgctgag ggagttagat cctgaggact gtaggacagc cggaagggtg 3180
tgcacgcccg tggtcagggc gcctgagttc cacgacaccg tcaccgggtc ggggaagtag 3240
tccttgacca ggcagcccag ggccgctgtg ccccagagg tgctcttgga ggagggtgcc 3300
agggggaaga ccgatgggccc cttatcaaac tagtgcaacg ttgactaaga atttcatgcg 3360
gccgcgtacg attgtaaata aaatgtaatt tacagtatag tattttaatt aatatacaaa 3420
tgatttgata ataattctta tttactata atatatgtg ttgggtgaa ttaaagggtc 3480
cggcatcctc aaatgcataa tatcatagtc ccccttggtg taagtgatgc gtatttctga 3540
atctttgtaa aatagcacac aggactccaa cgcgtttggc gttttatttt cttgctcgag 3600
gatatcatgg agataattaa aatgataacc atctcgcaaa taaataagta ttttactggt 3660
ttcgtaacag ttttgtaata aaaaaaccta ggattattca taccgtccca 3720
ccatcgggcg tgctagcggg tccatgggtg gacctgcat gctgctgctg ctgctgctgc 3780
taggcctttg ataacaccca gtgtcactct gttcccgcct tcctctgagg agcttcaagc 3840

```

caacaaggcc	acactgggtgt	gtctcataag	tgacttctac	ccgggagccg	tgacagtggc	3900
ctggaaggca	gatagcagcc	ccgtcaaggc	gggagtggag	accaccacac	cctccaaaca	3960
aagcaacaac	aagtacgcgg	ccagcagcta	cctgagcctg	acgcctgagc	agtggaaagtc	4020
ccacaaaagc	tacagctgcc	aggtcacgca	tgaaggggagc	accgtggaga	agacagtggc	4080
ccctacagaa	tgttcatagt	aaaagcttgt	cgttggatgg	aaaggaaaaag	agttctacag	4140
ggaaacttgg	accgccttca	tggagacag	cttccccatt	gttaacgacc	aagaagtgat	4200
ggatgttttc	cttgttgtca	acatgcgtcc	cactagaccc	aaccgttgtt	acaaattcct	4260
ggcccaacac	gctctgcgtt	gcgaccccg	ctatgtacct	catgacgtga	ttaggatcgt	4320
cgagccttca	tgggtgggca	gcaacaacga	gtaccgcata	agcctggcta	agaaggggcg	4380
cggctgcccc	ataatgaacc	ttcactctga	gtacaccaac	tcgttcgaac	agttcatcga	4440
tcgtgtcatc	tgggagaact	tctacaagcc	catcgtttac	atcggtagcc	actctgctga	4500
agaggaggaa	attctccttg	aagtttcctt	gggtgtcaaa	gtaaaggagt	ttgcaccaga	4560
cgcacctctg	ttcactggtc	cggcgattta	aaacacgata	cattgttatt	agtaatttta	4620
tttaagcgcta	gattctgtgc	gttgttgatt	tacagacaat	tggtgtacgt	attttaataa	4680
ttcattaaat	ttataatctt	tagggtggta	tgtagagcg	aaaatcaaata	gattttcagc	4740
gtctttatat	ctgaatttaa	atattaaatc	ctcaatagat	ttgtaaaaata	ggtttcgatt	4800
agtttcaaac	aagggttgtt	tttccgaacc	gatggctgga	ctatctaata	gattttcgct	4860
caacgccaca	aaacttgcca	aatctttag	cagcaatcta	gctttgtcga	tattcgtttg	4920
tggtttgttt	tgtaataaag	gttcgacgtc	gttcaaaaata	ttatgcgctt	ttgtatttct	4980
ttcatcactg	tcgttagtgt	acaattgact	cgacgtaaac	acgttaaata	aagctagctt	5040
ggacatatat	aacatcgggc	gtgttagctt	tattaggccg	attatcgctg	tcgtcccaac	5100
cctcgctcgt	agaagttgct	tccgaagacg	attttgccat	agccacacga	cgctatttaa	5160
ttgtgtcggc	taacacgtcc	gcgatcaaat	ttgtagttag	gcttttggga	attatttctg	5220
attgcggggc	tttttggggc	ggtttcaatc	taactgtgcc	cgattttaat	tcagacaaca	5280
cgtagaagaa	cgatgggtga	ggcgggtgta	acatttcaga	cggcaaatct	actaatggcg	5340
gcgggtggtg	agctgatgat	aaatctacca	tcgggtggagg	cgcaggcggg	gctggcgggc	5400
gaggcgagg	cggaggtggt	ggcgggtgat	cagacggcgg	tttaggctca	aatgtctctt	5460
taggcaaac	agtcggcacc	tcaactattg	tactggtttc	gggcgcgcgt	tttggtttga	5520
ccggctctgag	acgagtgcga	tttttttctg	ttctaatagc	ttccaacaat	tggtgtctgt	5580
cgtctaaagg	tcagacgggt	tgaggttccg	tcggcattgg	tgtagcgggc	ggcaattcag	5640
acatcgatgg	tggtgggtgg	gggtggaggc	ctggaatgtt	aggcacggga	gaaggtgggt	5700
gcggcggtgc	cgccgggtata	atttgttctg	gtttagtttg	ttcgcgacag	attgtgggca	5760
ccggcgagg	cgccgctggc	tgcaacaacg	aaggctcgtc	gcttcgaggc	agcgcttggg	5820
gtggtggcaa	ttcaatatata	taattggaat	acaaatcgta	aaaatctgct	ataagcattg	5880
taatttcgct	atcggtttacc	gtgcgatata	tttaacaaccg	ctcaatgtaa	gcaattgtat	5940
tgtaaaagaga	ttgtctcaag	ctccgcacgc	cgataacaag	ccttttctatt	tttactacag	6000
cattgttagtg	gcgagacact	tcgctgtcgt	cgactcgagt	tctatagtgt	cactaaaatc	6060
gtatgtgtat	gatacataag	gttatgtatt	aattgtagcc	gcgttctaac	gacaatatgt	6120
ccatattggtg	cactctcagt	acaatctgct	ctgatgccgc	atagttaaag	cagccccgac	6180
acccgccaac	acccgctgac	gcgccttgac	gggcttgtct	gctcccgcca	tcgcttaca	6240
gacaagctgt	gaccgtctcc	gggagctgca	tgtgtcagag	gttttcaccg	tcacaccga	6300
aacgcgcgag	aggaaaaggc	ctcgtgatac	gcctattttt	ataggttaat	gtcatgataa	6360
taatggtttc	ttagacgtca	gggtggcactt	ttcggggaaa	tgtagcgcgga	acccctattt	6420
gtttattttt	ctaaatacat	tcaaatatgt	atccgctcat	gagacaataa	ccctgataaa	6480
tgcttcaata	atattgaaaa	aggaagagta	tgagtattca	acatttccgt	gtcgccctta	6540
ttcccttttt	tgccgcattt	tgcttctctg	tttttgctca	cccagaaaacg	ctggtgaaag	6600
taaaagatgc	tgaagatcag	ttgggtgcac	gagtggttta	catcgaactg	gatctcaaca	6660
gcggtaagat	ccttgagagt	tttcgccccg	aagaacgttt	ttcaatgatg	agcactttta	6720
aagttctgct	atgtggcgcg	gtatttatccc	gtattgacgc	cgggcaagag	caactcggtc	6780
gccgcataca	ctattctcag	aatgacttgg	ttgagtactc	accagtcaca	gaaaagcatc	6840
ttacggatgg	catgacagta	agagaattat	gcagtgcctg	cataaccatg	agtataaaca	6900
ctgcggccaa	cttacttctg	acaacgatcg	gaggaccgaa	ggagctaacc	gcttttttgc	6960
acaacatggg	ggatcatgta	actcgccttg	atcgttggga	accggagctg	aatgaagcca	7020
taccaaacga	cgaagcgtgac	accacgatgc	ctgtagcaat	ggcaacaacg	ttgcgcaaac	7080
tattaactgg	cgaactactt	actctagctt	cccggcaaca	attaatagac	tggaaggag	7140
cggataaagt	tcaggagcca	cttctgcgct	cggcccttcc	ggctggctgg	tttattgtgt	7200
ataaatctgg	agccgggtgag	cgtgggtctc	gcgggtatcat	tcgagcactg	gggccagatg	7260
gtaagccctc	ccgtatcgtg	gttatctaca	cgacggggag	tcaggcaact	atggatgaac	7320

```

gaaatagaca gatcgctgag ataggtgcct cactgattaa gcattggtaa ctgtcagacc 7380
aagtttactc atatatactt tagattgatt taaaacttca tttttaattt aaaaggatct 7440
aggtgaagat cctttttgat aatctcatga ccaaaatccc ttaacgtgag ttttcgttcc 7500
actgagcgtc agaccccgta gaaaagatca aaggatcttc ttgagatcct ttttttctgc 7560
gcgtaatctg ctgcttgcaa acaaaaaaac caccgctacc agcggtggtt tgtttgccgg 7620
atcaagagct accaactcct tttccgaagg taactggctt cagcagagcg cagataccaa 7680
atactgtcct tctagtgtag cgtagtttag gccaccactt caagaactct gtagcaccgc 7740
ctacatacct cgctctgcta atcctgttac cagtggctgc tgccagtggc gataagtcgt 7800
gtcttaccgg gttggactca agacgatagt taccggataa ggcgagcgg tcgggctgaa 7860
cgggggggtt gtgcacacag cccagcttgg agcgaacgac ctacaccgaa ctgagatacc 7920
tacagcgtga gcattgagaa agcgccacgc ttcccgaagg gagaaaggcg gacaggatc 7980
cggtaagcgg cagggtcgga acaggagagc gcacgaggga gcttccaggg ggaaacgcct 8040
ggatatctta tagtcctgtc gggtttcgcc acctctgact tgagcgtcga tttttgtgat 8100
gctcgtcagg ggggcggagc ctatggaaaa acgccagcaa cgcggccttt ttacggttcc 8160
tggccttttg ctggcctttt gctcacatgt tctttcctgc gttatccctt gattctgttg 8220
ataaccgtat taccgccttt gactgagctg ataccgctcg ccgcagccga acgaccgagc 8280
gcagcagtc agtgagcag gaagcggaag agcgcccaat acgcaaaccg cctctccccg 8340
cgcgttgcc gattcattaa tgcagggtta cctggcttat cgaaattaat acgactcact 8400
ataggagac cggcagatcg atctgtcga 8429

```

<210> 92

<211> 120

<212> DNA

<213> Autographa californica nucleopolyhedrovirus

<400> 92

```

cttttctata ctattgtctg cgagcagttg tttgttgta aaaataacag ccattgtaat 60
gagacgcaca aactaatatc acaaactgga aatgtctatc aatatatagt tgctgatatc 120

```

<210> 93

<211> 230

<212> DNA

<213> Autographa californica nucleopolyhedrovirus

<400> 93

```

tcgagcaaga aaataaaacg ccaaacgcgt tggagtcttg tgtgctatct taaaaagatt 60
cagaaatacg catcaattac aacaaggggg actatgaaat tatgcatttg aggatgccgg 120
gacctttaat tcaaccaaac acaatatatt atagttaaat aagaattatt atcaaatcat 180
ttgtatatta attaaaatac tatactgtaa attacatttt atttacaatc 230

```